

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method Method to create a topology map of a wireless network, wherein said wireless network includes a plurality of network devices, wherein said network devices include mobile network devices provided for direct wireless communication in-between each other, and wherein said topology map indicating the quality of connectivity of each of said plurality of network devices device of a wireless network with all other network devices of said plurality of network devices in said wireless network, comprising characterized by the following steps:

[[[-]]] performing a measurement phase in which a calibration signal is successively broadcasted by each network device and in which all respective other network devices receiving said calibration signal measure the received signal quality;

[[[-]]] performing a reporting phase in which the measurement results are wirelessly transmitted from each network device to the network device creating said topology map; and

[[[-]]] performing a creating phase in which said topology map of the network is created within the network device creating said topology map on basis of all received measurement results.

Claim 2 (Currently Amended): The method Method according to claim 1, wherein characterized in that said calibration signal is transmitted in a dedicated control channel.

Claim 3 (Currently Amended): The method Method according to claim 1, wherein characterized in that said measurement results are reported in a respective dedicated control channel.

Claim 4 (Currently Amended): The method Method according to claim 1, wherein characterized in that said calibration signal is transmitted with the maximum allowed transmit power level.

Claim 5 (Currently Amended): The method Method according to claim 1, wherein characterized in that said topology map is updated when a new network device joins the network.

Claim 6 (Currently Amended): The method Method according to claim 1, wherein characterized in that said topology map is updated after a predetermined amount of time.

Claim 7 (Currently Amended): The method Method according to claim 1, wherein characterized in that said topology map is stored in a central controller of said wireless network.

Claim 8 (Currently Amended): The method Method according to claim 1, wherein characterized in that said topology map is broadcasted in the whole network.

Claim 9 (Currently Amended): The method Method according to claim 1, wherein characterized in that only the parts of the topology map related to a specific network device are transmitted to said specific network device.

Claim 10 (Currently Amended): The method Method according to claim 1, wherein characterized in that said calibration signal is transmitted using an omni-directional antenna.

Claim 11 (Currently Amended): The method Method according to claim 1, wherein characterized in that the contents of the topology map are codes that are mapped to receive power values.

Claim 12 (Currently Amended): The method Method according to claim 1, wherein characterized in that said measurement phase and/or reporting phase is initiated by the network device creating said topology map.

Claim 13 (Currently Amended): A network Network device for a wireless network, wherein said wireless network includes a plurality of network devices, wherein said network devices include mobile network devices provided for direct wireless communication in-between each other, and wherein a topology map indicating the quality of connectivity of each network device of the wireless network with all other network devices in said wireless network is created, comprising: characterized by

means for broadcasting to broadcast a calibration signal to the other network devices;[[],]

means for measuring to measure a power level of [[a]] received calibration signals;
signal,

means for internally storing to internally store results of said measurement; and
means for wirelessly transmitting to wirelessly transmit said measurement results to another network device.

Claim 14 (Currently Amended): The network Network device according to claim 13, wherein characterized in that said functions are performed on demand of another network device or on an internal demand.

Claim 15 (Currently Amended): The network Network device according to claim 13,
further comprising: characterized by

a calibration decoder that initiates the broadcast of a calibration signal and the measurement of the reception quality of one or more incoming calibration signals upon reception of a measurement control signal.

Claim 16 (Currently Amended): The network Network device according to claim 15,
wherein characterized in that said calibration decoder initiates the transmission of one or more measurement results upon reception of a reporting control signal.

Claim 17 (Currently Amended): The network Network device according to claim 13,
further comprising: characterized by

a report encoder that receives one or more signal quality indication signals and encodes therefrom a signal quality control signal to be transmitted to said other network device.

Claim 18 (Currently Amended): The network Network device configured and adapted for wireless communication in a wireless network including a plurality of network devices,
wherein a topology map indicating the quality of connectivity of each network device of the
wireless network with all other network devices in said wireless network is created,
comprising: characterized by

means configured and adapted for generating and wirelessly communicating respective control signals for initiating a measurement phase and initiating a reporting phase;
and

means configured and adapted for performing a creation of a topology map indicative of the quality of wireless connectivity of each network device of said wireless network with all other network devices in said wireless network on the basis of measurement results received during the reporting phase.

Claim 19 (Canceled).

Claim 20 (Currently Amended): A method Method to create a topology map of a wireless network including comprising a plurality of network devices, wherein said network devices include mobile network devices provided for direct wireless communication in-between each other at least one of said network devices lacks a wired network connection to any other of said network devices, said topology map indicating the quality of connectivity of each of said plurality of network devices with all other network devices of said plurality of network devices, comprising characterized by the following steps:

performing a measurement phase in which a calibration signal is successively broadcasted by each network device and in which all respective other network devices receiving said calibration signal measure the received signal quality;

performing a reporting phase in which the measurement results are transmitted from each network device to the network device creating said topology map; and

performing a creating phase in which said topology map of the network is created within the network device creating said topology map on the basis of all received measurement results.

Claim 21 (Currently Amended): The method Method according to claim 20, wherein characterized in that said calibration signal is transmitted in a dedicated control channel.

Claim 22 (Currently Amended): The method Method according to claim 20, wherein characterized in that said measurement results are reported in a respective dedicated control channel.

Claim 23 (Currently Amended): The method Method according to claim 20, wherein characterized in that said calibration signal is transmitted with the maximum allowed transmit power level.

Claim 24 (Currently Amended): The method Method according to claim 20, wherein characterized in that said topology map is updated when a new network device joins the network.

Claim 25 (Currently Amended): The method Method according to claim 20, wherein characterized in that said topology map is updated after a predetermined amount of time.

Claim 26 (Currently Amended): The method Method according to claim 20, wherein characterized in that said topology map is stored in a central controller of said wireless network.

Claim 27 (Currently Amended): The method Method according to claim 20, wherein characterized in that said topology map is broadcasted in the whole network.

Claim 28 (Currently Amended): The method Method according to claim 20, wherein characterized in that only the parts of the topology map related to a specific network device are transmitted to said specific network device.

Claim 29 (Currently Amended): The method Method according to claim 20, wherein characterized in that said calibration signal is transmitted using an omni-directional antenna.

Claim 30 (Currently Amended): The method Method according to claim 20, wherein characterized in that said measurement phase and/or reporting phase is initiated by the network device creating said topology map.

Claim 31 (Currently Amended): A method Method to create a topology map of a wireless network including comprising a plurality of network devices, wherein said network devices include mobile network devices provided for direct wireless communication in-between each other network communication between said plurality of network devices is effected solely as wireless communication, wherein network communication between said plurality of network devices is effected solely as wireless communication and wherein said topology map indicating the quality of connectivity of each of said plurality of network devices with all other network devices of said plurality of network devices, comprising characterized by the following steps:

performing a measurement phase in which a calibration signal is successively broadcasted by each network device and in which all respective other network devices receiving said calibration signal measure the received signal quality;

performing a reporting phase in which the measurement results are transmitted from each network device to the network device creating said topology map; and

performing a creating phase in which said topology map of the network is created within the network device creating said topology map on the basis of all received measurement results.

Application No. 09/598,984
Reply to Office Action of November 21, 2005

Claims 32-35 (Canceled).